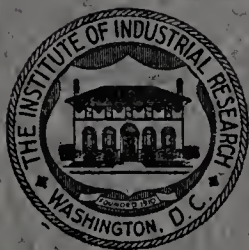


REPORT OF THE 1912 INSPECTION OF
THE PITTSBURGH TEST FENCE,

INCLUDING THE REPAINTING TESTS
AND THE NEW TESTS.



SCIENTIFIC SECTION

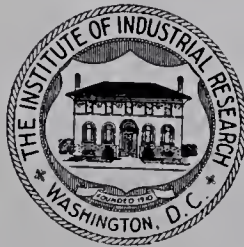
HENRY A. GARDNER, Director

EDUCATIONAL BUREAU

PAINT M'FRS ASSOCIATION OF THE UNITED STATES
PHILADELPHIA, PA.

REPORT OF THE 1912 INSPECTION OF
THE PITTSBURGH TEST FENCE,

INCLUDING THE REPAINTING TESTS
AND THE NEW TESTS.



SCIENTIFIC SECTION

HENRY A. GARDNER, Director

EDUCATIONAL BUREAU
PAINT M'FRS ASSOCIATION OF THE UNITED STATES
PHILADELPHIA, PA.

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REPORT OF THE 1912 INSPECTION OF THE PITTSBURGH TEST FENCE, INCLUD- ING THE REPAINTING TESTS AND THE NEW TESTS.

An inspection of the Pittsburgh Test Fence was made on August 29, 1912.

Repainting Tests. The first set of panels examined were those which were painted in December, 1907, and exposed in January, 1908. All of those white-pine panels in this test, that were painted white, were prepared for repainting in May, 1910, the surface of each being lightly sand-papered and brushed to remove loosely adhering soot or dirt. The paints used in the repainting tests were all contained in original sealed and labeled packages, having been kept under lock and key in a storage vault for nearly three years and being part of the supply that was originally used in the painting of the panels in December, 1907.

FENCE COMMITTEE.*

Mr. Alfred C. Rapp, Chairman Test Fence Committee, Pittsburgh Branch, Master Painters' Association of Pennsylvania.

Mr. John Dewar, Member Fence Committee, Pittsburgh Branch, Master Painters' Association of Pennsylvania.

Dr. J. H. James, Chairman Carnegie Technical Schools' Fence Committee.

Mr. Henry A. Gardner, Assistant Director, The Institute of Industrial Research, Washington, D. C.

Most of these paints were found in good condition when the packages were opened. Some of the single pigment pastes, however, which had been kept in the old-style wooden packages, were found to be hard and lumpy. Leakage of the oil was probably responsible for this result.

Reductions, Application, and Drying. For application of the first repainting coat of paint, a reduction of one-half pint of turpentine and one-half pint of linseed oil to one gallon of paint was used, with an equivalent amount in the case of the white pastes which were broken up previous to reduction, with $4\frac{1}{2}$ gallons of oil to 100 pounds of paste. In certain cases, where the surfaces of the old paints were very hard, a somewhat higher reduction was used, depending upon the judgment of the practical master painter to make such reduction as was needed. The penetration of the paints into the wood was excellent in nearly every case, and the drying proceeded rapidly. The second repainting coat was applied without reduction, six days after the first coat. This coat dried very well within twenty-four hours after application. The paints were applied to the panels without removing them from the fence.

Results of Inspection. When white paints are exposed to atmospheric conditions such as are found in Pittsburgh and cities of great industrial activity, rapid darkening often ensues. This con-

dition is illustrated in the photographic reproductions herein and is recorded on the attached detail inspection chart.

Those white paints made of lead pigments and zinc oxide, with or without a moderate percentage of inert pigments such as barytes, asbestine, etc., are in generally good condition, having withstood for over two years a severe weather test, without showing any decided indications of failure. One of the most noticeable features of the tests is the generally superior condition of the repainted panels, as contrasted with the appearance of the paints originally applied to the new wood, after they had been exposed but one year. The single-pigment paints, some of which presented darkened and checked surfaces previous to repainting, are showing in most cases magnification of these defects. A detailed report of the condition of each panel is attached.

Inspection of New Tests. The tests which were painted and exposed early in June, 1909, consisting largely of various combinations of lithopone with other white pigments, were also inspected on August 29th, by the same committee inspecting the repainting tests. Although the inspection was made almost entirely from the panels painted white, it was generally observed that the tinted paints were in a better state of preservation.

Considering the period of time over which these new tests have been exposed, it is fair to say that excellent results have been obtained with those white paints made of a high percentage of the lead and zinc pigments in combination, or of a high percentage of lead and zinc pigments combined with a moderate percentage of the inert pigments.

Attention is called to the detail photographs presented with this report, which show in a general way the condition of the test panels at the time of inspection. It is to be noted, however, that it is not always possible to illustrate by photographic means the true color values or surface conditions presented by the various paints. On this account the reader is advised not to give too much consideration to the illustration, but to weigh carefully the appended report of conditions at inspection when forming a conclusion as to the value of the various formulas.

PITTSBURGH TEST FENCE.
PAINTED DECEMBER, 1907. EXPOSED JANUARY, 1908. REPAINTED MAY, 1910.

OLD TESTS.

TABLE OF RESULTS OF INSPECTION AUGUST, 1912.

WHITE-PINE * PANELS PAINTED WHITE.

Formula No.	Panel No.	FORMULAS.										REPORT OF INSPECTION.				Panel No.	Formula No.
		Basic Carbonate White Lead.	Zinc Oxide.	Basic Sulphate White Lead.	Zinc Lead, White.	Inert Pigments.						Chalking.	Checking.	Condition.	Remarks.		
						Calcium Carbonate.	Calcium Sulphate.	Magnesium Silicate.	Barium Sulphate.	Silica.	Blanc Fixe.						
1	2	% 30	% 70	%	%	%	%	%	%	%	%	Slight.....	Some lateral check- ing.	Fairly good.....	Surface dark.....	2	1
2	4	50	50									Heavy.....	Medium.....	Fairly good.....	Lighter surface than No. 1.....	4	2
3	6	20	50	20		10						Considerable....	None.....	Good.....	Fairly white surface.....	6	3
4	8	48.5	48.5			3.0						Considerable....	Slight.....	Good.....	White surface.....	8	4
5	10	22	50			2		26				Considerable....	Some lateral.....	Fairly good.....	White surface.....	10	5
6	12		64						36			Medium.....	Medium.....	Poor.....	Dark surface.....	12	6
7	14	37	63									Medium.....	Slight lateral check- ing.	Good.....	Medium white surface.....	14	7
8	16	38	48							14		Heavy.....	Slight.....	Good.....	Medium white surface.....	16	8
9	18		73			2				25		Medium.....	Considerable lateral checking.	Poor.....	Brittle, scaly, transparent surface.....	18	9
10	20	44	46			5		5				Medium.....	Slight.....	Good.....	White surface.....	20	10
11	22	50	50									Medium.....	None.....	Fairly good.....	White.....	22	11
12	24	60	34									Heavy.....	Slight.....	Good.....	Fairly white.....	24	12
13	26		27	60		3		10				Medium.....	None.....	Very good.....	White surface.....	26	13
14	28	25	25	20		5	25					Medium.....	Slight.....	Fairly good.....	Fairly white.....	28	14
15	30	20	40		30	10						Medium.....	Some lateral check- ing.	Fairly good.....	White surface.....	30	15
16	32	33	33						34			Heavy.....	Medium.....	Good.....	White.....	32	16
17	34	40	40					3	13		4	Medium.....	Slight.....	Good.....	White.....	34	17
18	36	75	25									Medium.....	Slight.....	Fair.....	Surface much darkened.....	36	18
19	38		25	75								Medium.....	None.....	Very good.....	Very white surface.....	38	19
20	40	67.0	19.5			10.0		3.5				Considerable....	Slight.....	Good.....	Darkened.....	40	20
33	168	15	30	25						30		Very slight.....	Medium.....	Fair.....	Surface dark and rough.....	168	33
34	172	38.95	33.58	4.81		19.48			1.59	1.59		Heavy.....	None.....	Good.....	White.....	172	34
35	173	37.51	25.87	7.84		20.36			4.21	4.21		Heavy.....	None.....	Good.....	Fairly white surface.....	173	35
36	174	100										Medium.....	Heavy.....	Fair.....	Darkened surface with mottled appearance.	174	36
37	175	100										Medium.....	Considerable.....	Poor.....	Much darkened.....	175	37
38	176	100										None.....	Heavy allgatoring....	Poor.....	Darkened.....	176	38
39	177				100							Considerable....	Medium.....	Fairly good.....	Fairly white.....	177	39
40	178			100								Heavy.....	None.....	Good.....	White.....	178	40
45	169		90			10						Slight.....	Medium.....	Fair.....	Surface darkened since last inspection....	169	45
46	170		61						39			Very slight.....	Medium.....	Poor.....	Surface darkened and slightly rough.....	170	46
47	171		100									Very slight.....	Considerable.....	Poor.....	Scaling pronounced.....	171	47

* Panels 171, 173, 174, 175, 177—yellow pine.

Pure Linseed Oil used in all Paints.



PITTSBURGH TEST FENCE.
NEW TESTS—EXPOSED JUNE, 1909.

TABLE OF RESULTS OF INSPECTION AUGUST, 1912.
WHITE-PINE PANELS PAINTED WHITE—THREE-COAT WORK.

Formula No.	Panel No.	FORMULAS.												REPORT OF INSPECTION.				Panel No.	Formula No.
		Basic Carbonate White Lead.	Zinc Oxide.	Basic Sulphate White Lead.	Precipitate White Lead.	Zinc Lead.	Litho-pone.	Inert Pigments.						Chalking.	Checking.	General Condition.	Remarks.		
								Calcium Carbonate.	Silica.	Asbes-tine.	China Clay.	Barytes.	Blanc Fixe.						
		%	%	%	%	%	%	%	%	%	%	%	%						
1	1			45			40	15									Disintegrated.....	1	1
2	2			45			40		15								Disintegrated.....	2	2
3	3		45				45	10									Disintegrated.....	3	3
4	4			45			45	10									Disintegrated.....	4	4
5	5		40				40	20									Disintegrated.....	5	5
6	6			45			35			20							Disintegrated.....	6	6
7	7	50				36				2	8	4		Medium.....	None.....	Very good.....	Very white surface.....	7	7
8	8			50			36			2	8	4		Heavy.....	Heavy, scaled.....	Very poor.....	Darkened surface caused by lithopone and lead mixture..	8	8
9	9			50			36			2		12		Heavy.....	Heavy, scaled.....	Very poor.....	Darkened surface caused by lithopone and lead mixture..	9	9
10	10		36	50						2	8	4		Medium.....	Slight.....	Fair.....		10	10
11	11	28	55							3		7	7	Considerable...	Considerable.....	Fair.....	Slightly darkened.....	11	11
12	12		55	28						3		7	7	Considerable...	None.....	Very good.....	Very white.....	12	12
13	13		60				30	10									Disintegrated.....	13	13
14	14		30	30			30	10									Disintegrated.....	14	14
15	15			60			30			10								15	15
16	16						100							Heavy.....	Heavy.....	Poor.....		16	16
17	17						100										Disintegrated.....	17	17
18	18	33	33						17		17			Heavy.....	Considerable lateral checking.	Poor.....	Transparent.....	18	18
19	19	34	33						33					Slight.....	Considerable.....	Poor.....	Semi-transparent.....	19	19
20	20	34	33								33			Very slight....	Heavy.....	Poor.....	Semi-transparent.....	20	20
21	21	100												Medium.....	Medium.....	Poor.....	Surface very rough and darkened.....	21	21
22	22					100								Medium.....	Slight.....	Fair.....	Fairly white surface.....	22	22*
23	23	100												Very heavy....	Heavy.....	Poor.....	Surface very rough and darkened.....	23	23
24	24			100										Heavy.....	Very slight....	Good.....	White surface.....	24	24
25	25					100								Heavy.....	Slight.....	Good.....	Fairly white surface.....	25	25
26	26				100									Medium.....	Medium.....	Poor.....	Rough darkened surface.....	26	26
27*	27	100												Considerable...	Slight.....	Good.....	White surface with granular texture.....	27	27*
28	28	100												Slight.....	Deep.....	Very poor.....	Rough, darkened surface.....	28	28
29	29	24	45	13						18				Medium.....	Slight.....	Good.....	Very white.....	29	29
30	30	45					40	15						Heavy.....	Considerable.....	Poor.....	Slightly dark.....	30	30
31	31	45					40		15					Heavy.....	Considerable.....	Poor.....	Slightly dark.....	31	31
32	32	45					35			20				Heavy.....	Deep.....	Fair.....	Dark and rough.....	32	32
33	33	50					36			2		12		Medium.....	Considerable.....	Poor.....	Dark and rough.....	33	33
34	34	75		25										Medium.....	Medium.....	Fair.....	Surface dark and rough.....	34	34
35	35	50		50										Heavy.....	Heavy.....	Fair.....	Dark surface is spotting off in places. Probably due to second chalking.†	35	35
36	36								100					Very heavy....	Medium.....	Poor.....	Rough surface. Transparent.....	36	36

* This white lead made by the Cylinder Process without the use of acetic acid.

N. B.—Notice is called to the fact that White Lithopone Paints, when exposed to the weather, have not given satisfactory service upon wooden surfaces. For interior use, however, Lithopone Paints have proved highly satisfactory and very durable. Experiments with White Lithopone Paints, made up with special oils and vehicles designed to withstand exterior exposure, are under way.

INSPECTION MADE ONLY ON WHITE PAINTS.

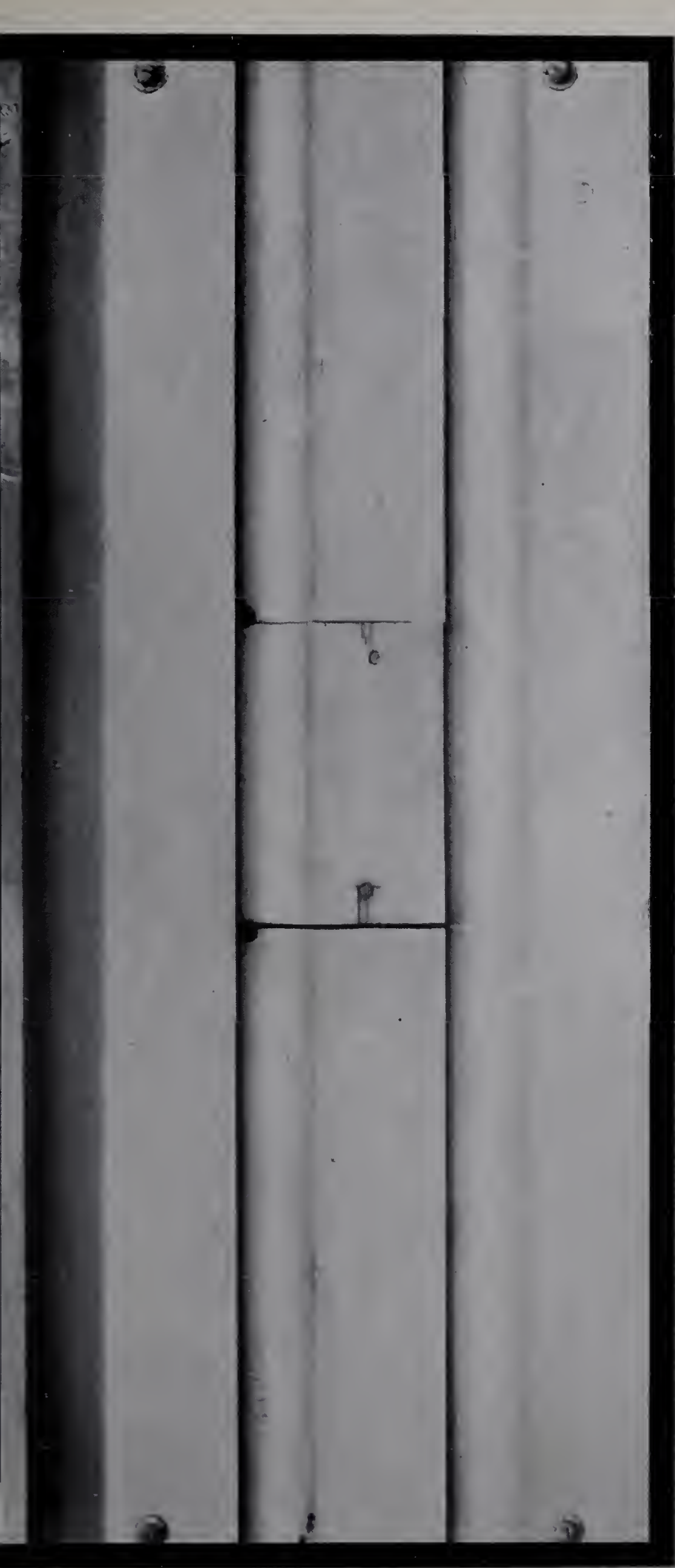
TINTED PAINTS ALL IN SUPERIOR CONDITION TO SAME FORMULAS IN WHITE.

Pure Linseed Oil used in all Paints.

† In the Pittsburgh district, after the initial chalking of a paint has progressed, there is observed in some instances a darkened surface. This darkened surface is often removed to a great extent by the progressive chalking, or so-called "second chalking period," through which a paint will sometimes go.

Date		No.		Name		Address	
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1890	98	98	98	98	98	98	98
1890	99	99	99	99	99	99	99
1890	100	100	100	100	100	100	100

The above is a list of the names of the persons who have been
 admitted to the membership of the Society since the last
 meeting of the Executive Committee. The names are given in
 alphabetical order of the surnames.



OLD TESTS REPAINTED

Formula No. 1

Test Panel No. 2

Basic Carbonate-White Lead.....	30%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	70%	Chalking: Slight
	<hr/>	Checking: Some lateral checking
	100%	Condition: Fairly good
		Remarks: Surface dark

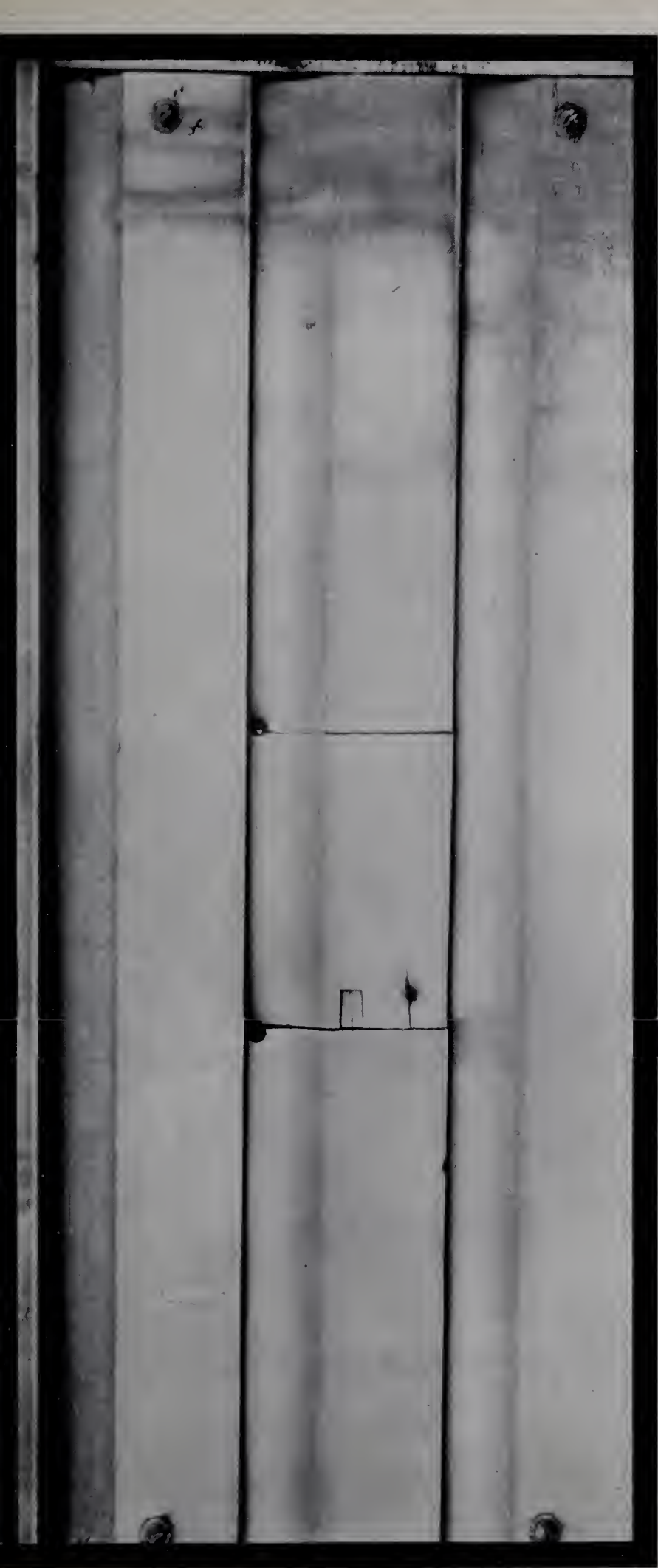


OLD TESTS REPAINTED

Formula No. 2

Test Panel No. 4

Basic Carbonate-White Lead.....	50%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	50%	Chalking: Heavy
	<hr/>	Checking: Medium
	100%	Condition: Fairly good
		Remarks: Lighter surface than No. 1



OLD TESTS REPAINTED

Formula No. 3

Test Panel No. 6

Basic Carbonate-White Lead.....	20%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	50%	Chalking: Considerable
Basic Sulphate-White Lead.....	20%	Checking: None
Calcium Carbonate.....	10%	Condition: Good
	<hr/>	Remarks: Fairly white surface
	100%	



OLD TESTS REPAINTED

Formula No. 4

Test Panel No. 8

Basic Carbonate-White Lead.....	48.5%	Results of Inspection. Aug. 29, 1912 :
Zinc Oxide.....	48.5%	Chalking : Considerable
Calcium Carbonate.....	3.0%	Checking : Slight
	<hr/>	Condition : Good
	100.00%	Remarks : White surface

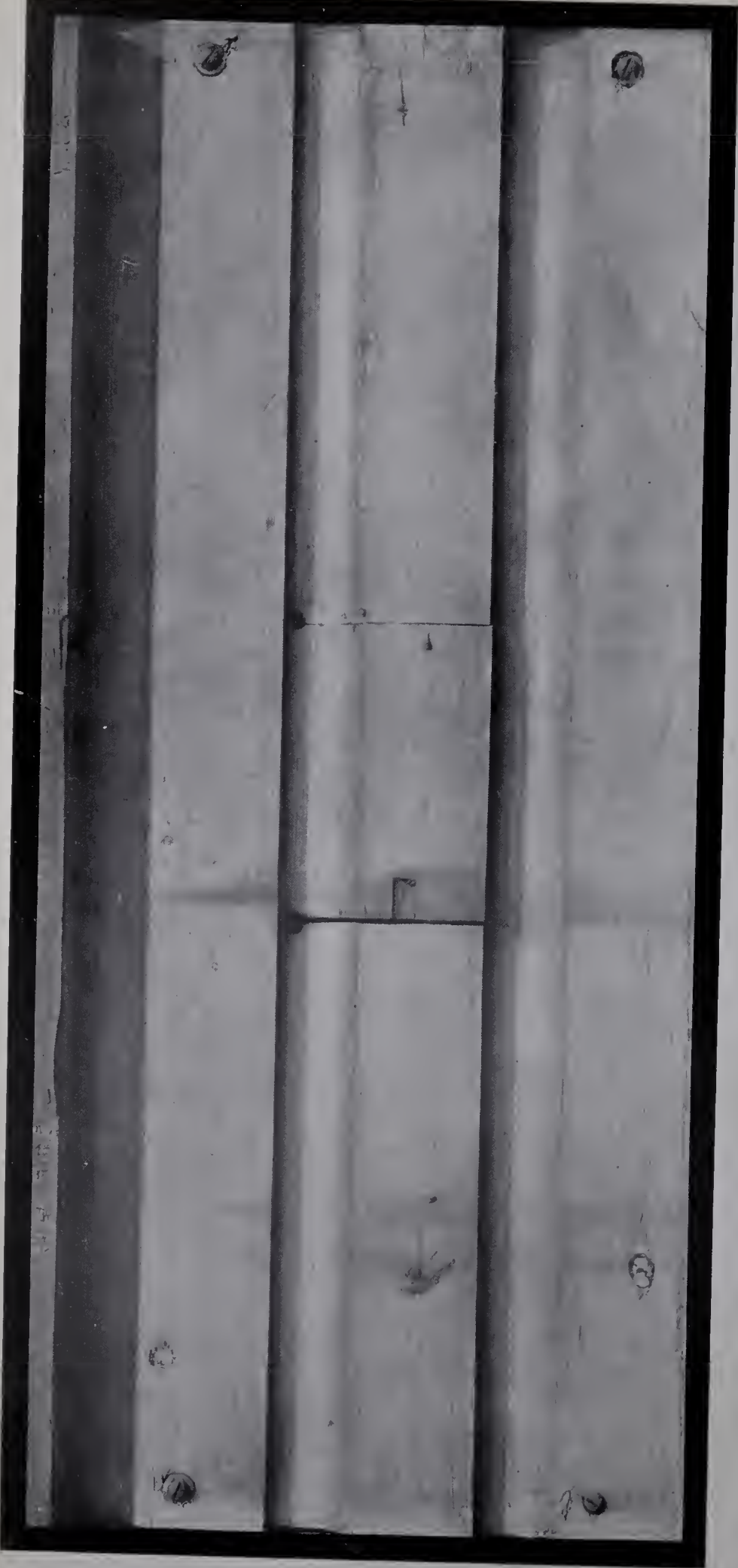


OLD TESTS REPAINTED

Formula No. 5

Test Panel No. 10

Basic Carbonate-White Lead.....	22%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	50%	Chalking: Considerable
Calcium Carbonate.....	2%	Checking: Some lateral checking
Magnesium Silicate.....	26%	Condition: Fairly good
	<hr/>	Remarks: White surface
	100%	



OLD TESTS REPAINTED

Formula No. 6

Test Panel No. 12

Zinc Oxide.....	64%	Results of Inspection, Aug. 29, 1912:
Barium Sulphate.....	36%	Chalking: Medium
	<hr/>	Checking: Medium
	100%	Condition: Poor
		Remarks: Dark surface



OLD TESTS REPAINTED

Formula No. 7

Test Panel No. 14

Basic Carbonate-White Lead.....	37%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	63%	Chalking: Medium
	<hr/>	Checking: Slight lateral checking
	100%	Condition: Good
		Remarks: Medium white surface

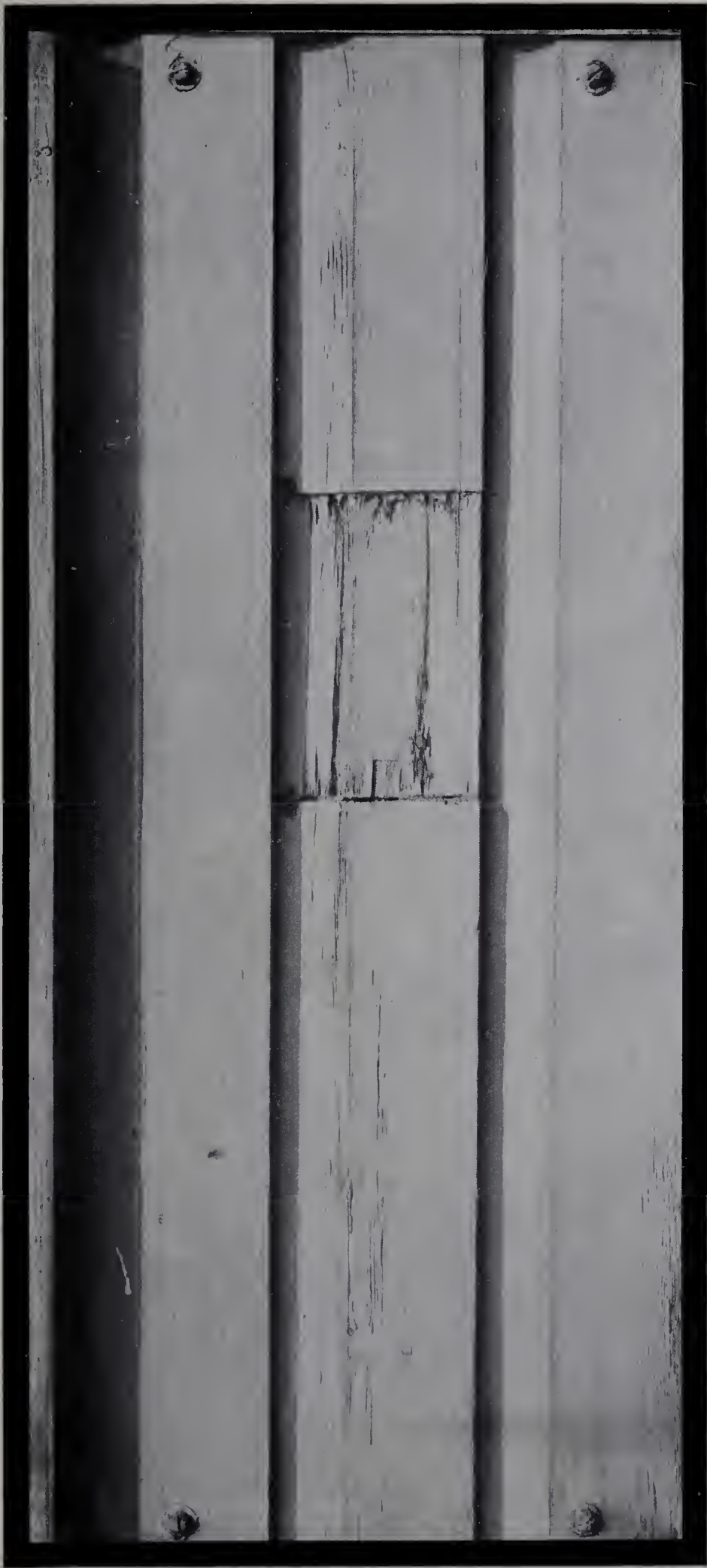


OLD TESTS REPAINTED

Formula No. 8

Test Panel No. 16

Basic Carbonate-White Lead.....	38%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	48%	Chalking: Heavy
Silica	14%	Checking: Slight
	<hr/> 100%	Condition: Good
		Remarks: Medium white surface

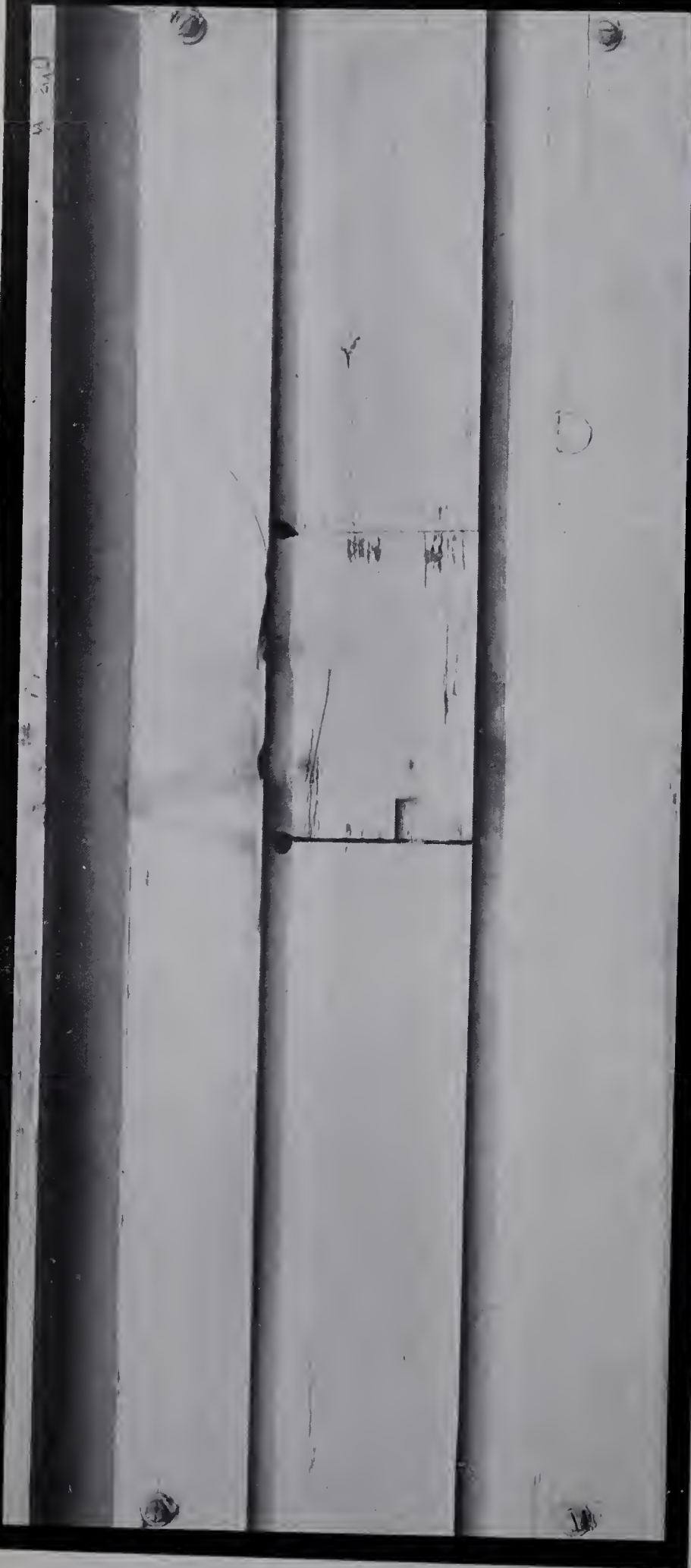


OLD TESTS REPAINTED

Formula No. 9

Test Panel No. 18

Zinc Oxide.....	73%	Results of Inspection, Aug. 29, 1912:
Calcium Carbonate.....	2%	Chalking: Medium
Silica	25%	Checking: Considerable lateral checking
	<hr/>	Condition: Poor
	100%	Remarks: Brittle, scaly, transparent surface

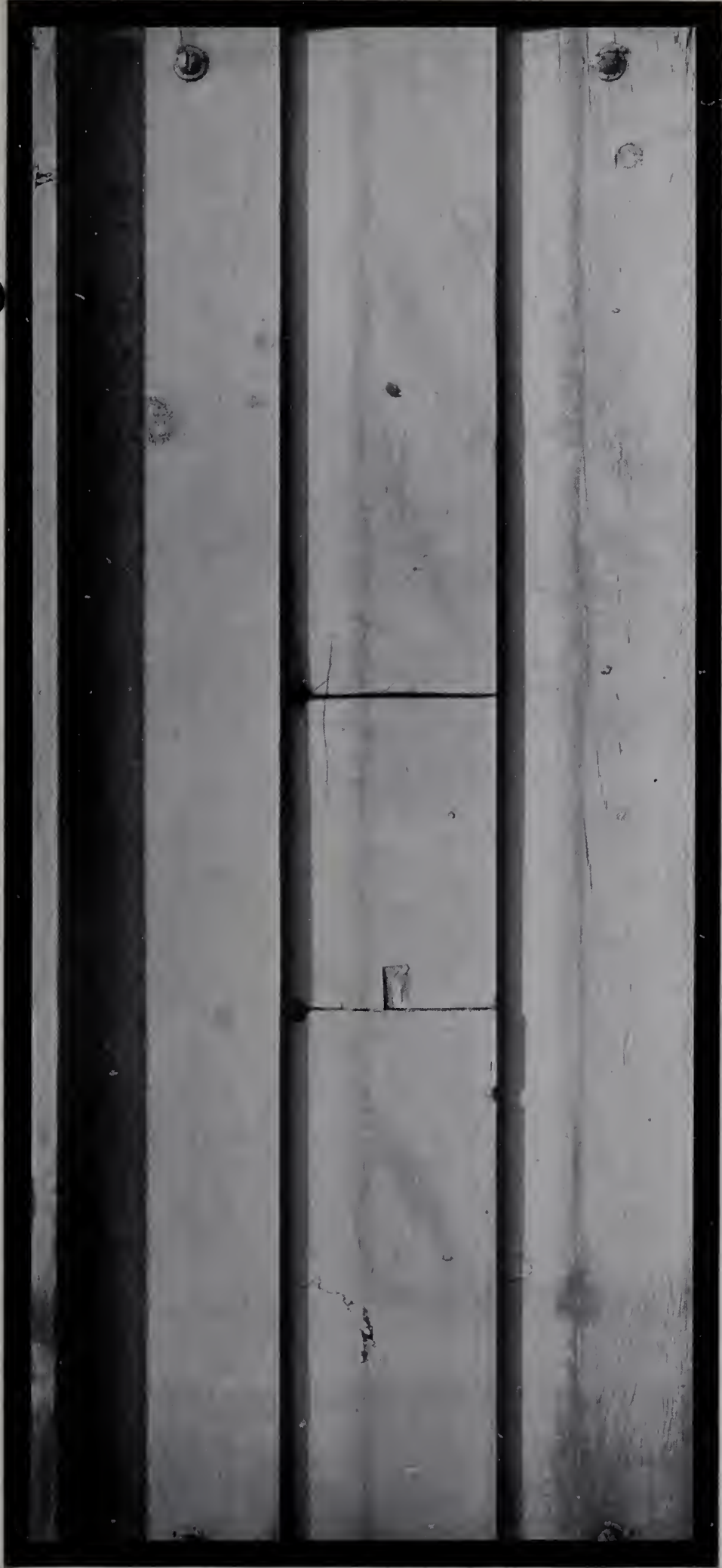


OLD TESTS REPAINTED

Formula No. 10

Test Panel No. 20

Basic Carbonate-White Lead.....	44%	Results of Inspection. Aug. 29, 1912:
Zinc Oxide.....	46%	
Calcium Carbonate.....	5%	
Magnesium Silicate.....	5%	
<hr/>		Condition: Good
100%		Remarks: White surface

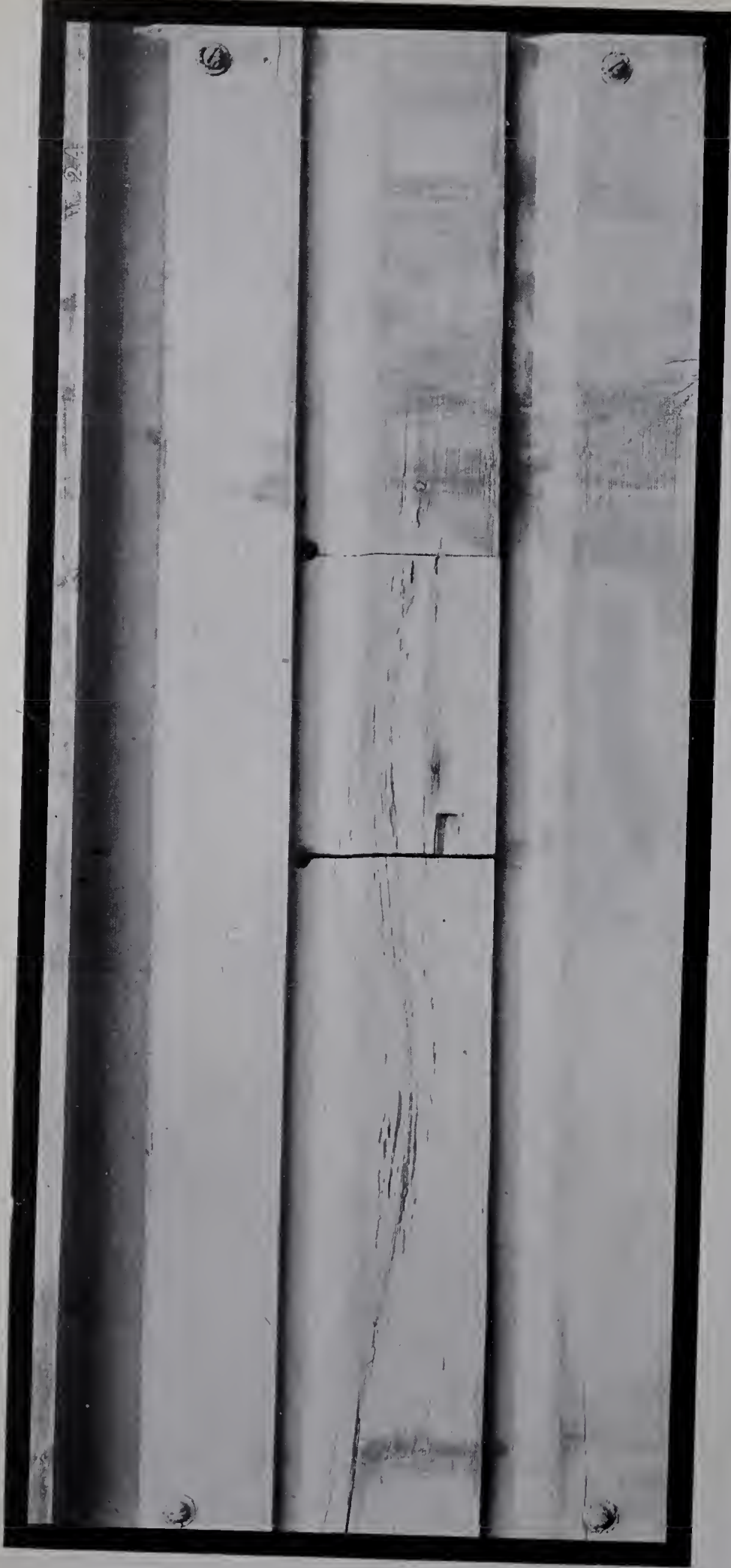


OLD TESTS REPAINTED

Formula No. 11

Test Panel No. 22

Basic Carbonate-White Lead.....	50%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	50%	Chalking: Medium
	<hr/>	Checking: None
	100%	Condition: Fairly Good
		Remarks: White

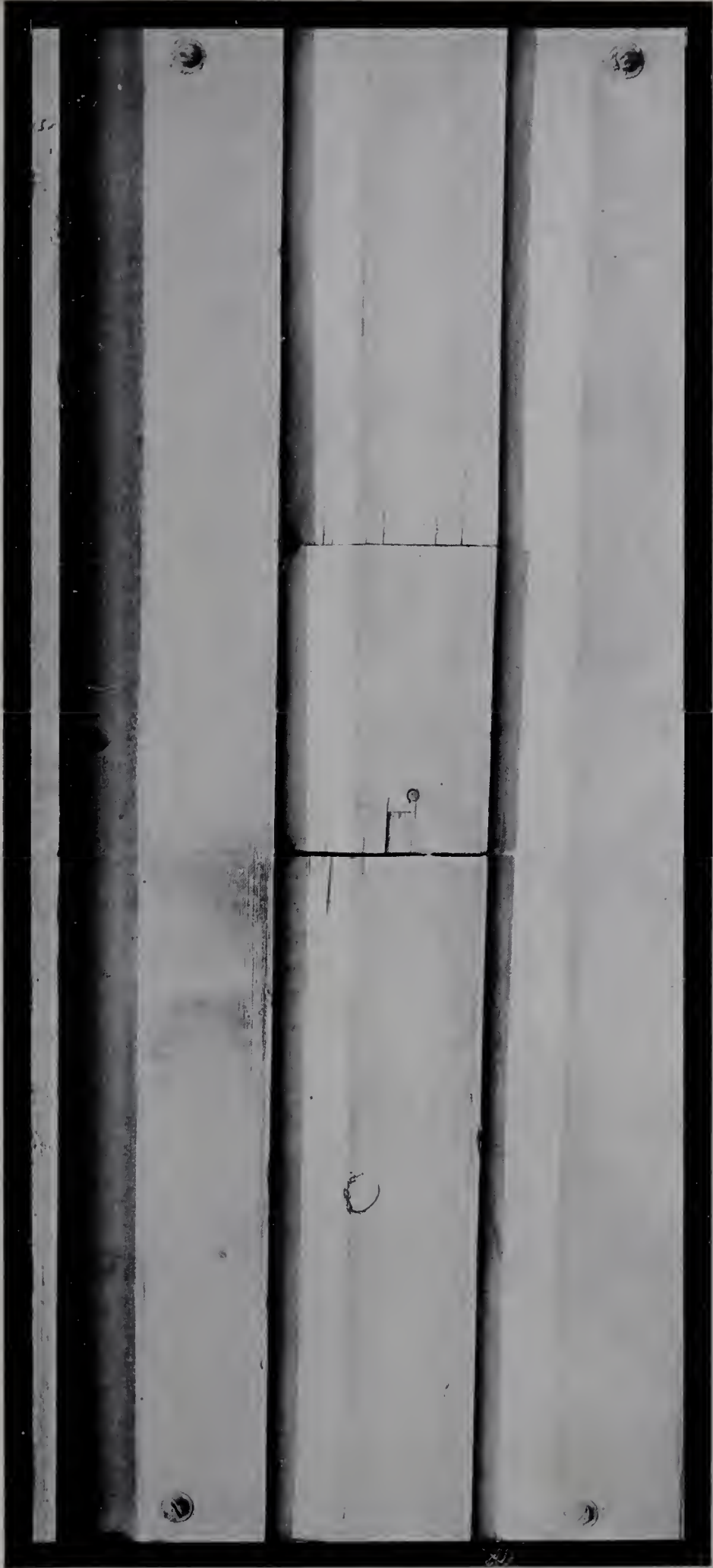


OLD TESTS REPAINTED

Formula No. 12

Test Panel No. 24

Basic Carbonate-White Lead.....	60%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	34%	Chalking: Heavy
Inert Pigment.....	6%	Checking: Slight
	<hr/> 100%	Condition: Good
		Remarks: Fairly white



OLD TESTS REPAINTED

Formula No. 13

Test Panel No. 26

Basic Sulphate-White Lead.....	60%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	27%	Chalking: Medium
Calcium Carbonate.....	3%	Checking: None
Magnesium Silicate.....	10%	Condition: Very good
	<u>100%</u>	Remarks: White surface

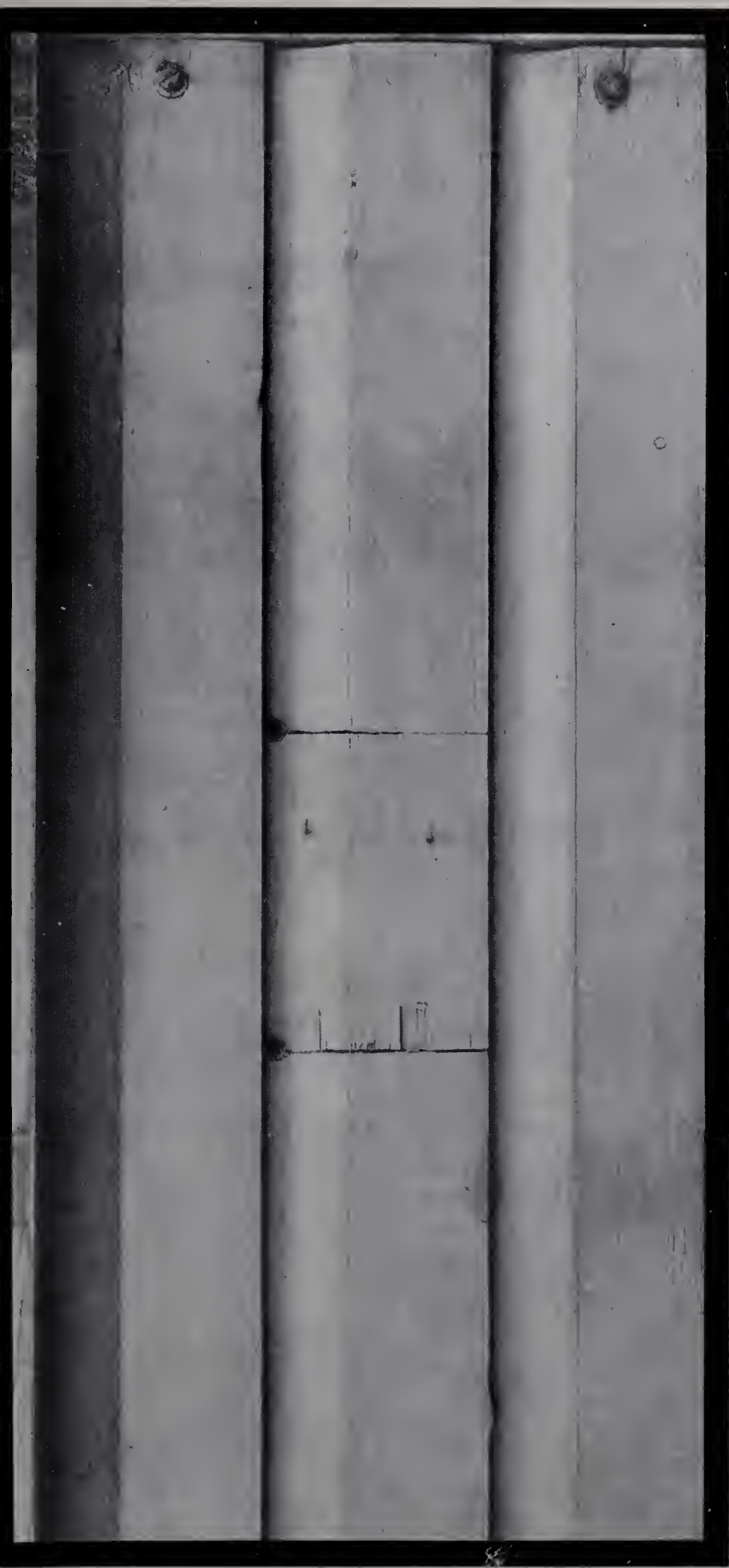


OLD TESTS REPAINTED

Formula No. 14

Test Panel No. 28

Calcium Sulphate.....	25%	Results of Inspection, Aug. 29, 1912:
Basic Carbonate-White Lead.....	25%	Chalking: Medium
Zinc Oxide.....	25%	Checking: Slight
Basic Sulphate-White Lead.....	20%	Condition: Very good
Calcium Carbonate.....	5%	Remarks: Fairly white
		<hr/>
		100%



OLD TESTS REPAINTED

Formula No. 15

Test Panel No. 30

Basic Carbonate-White Lead.....	20%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	40%	Chalking: Medium
Zinc Lead White.....	30%	Checking: Some lateral checking
Calcium Carbonate.....	10%	Condition: Fairly good
	<hr/>	Remarks: White surface
	100%	



OLD TESTS REPAINTED

Formula No. 16

Test Panel No. 32

Basic Carbonate-White Lead.....	33%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	33%	Chalking: Heavy
Barium Sulphate.....	34%	Checking: Medium
	<hr/> 100%	Condition: Good
		Remarks: White



OLD TESTS REPAINTED

Formula No. 17

Test Panel No. 34

Basic Carbonate-White Lead.....	40%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	40%	Chalking: Medium
Magnesium Silicate.....	3%	Checking: Slight
Barium Sulphate.....	13%	Condition: Good
Blanc Fixe.....	4%	Remarks: White
<hr/>		
100%		

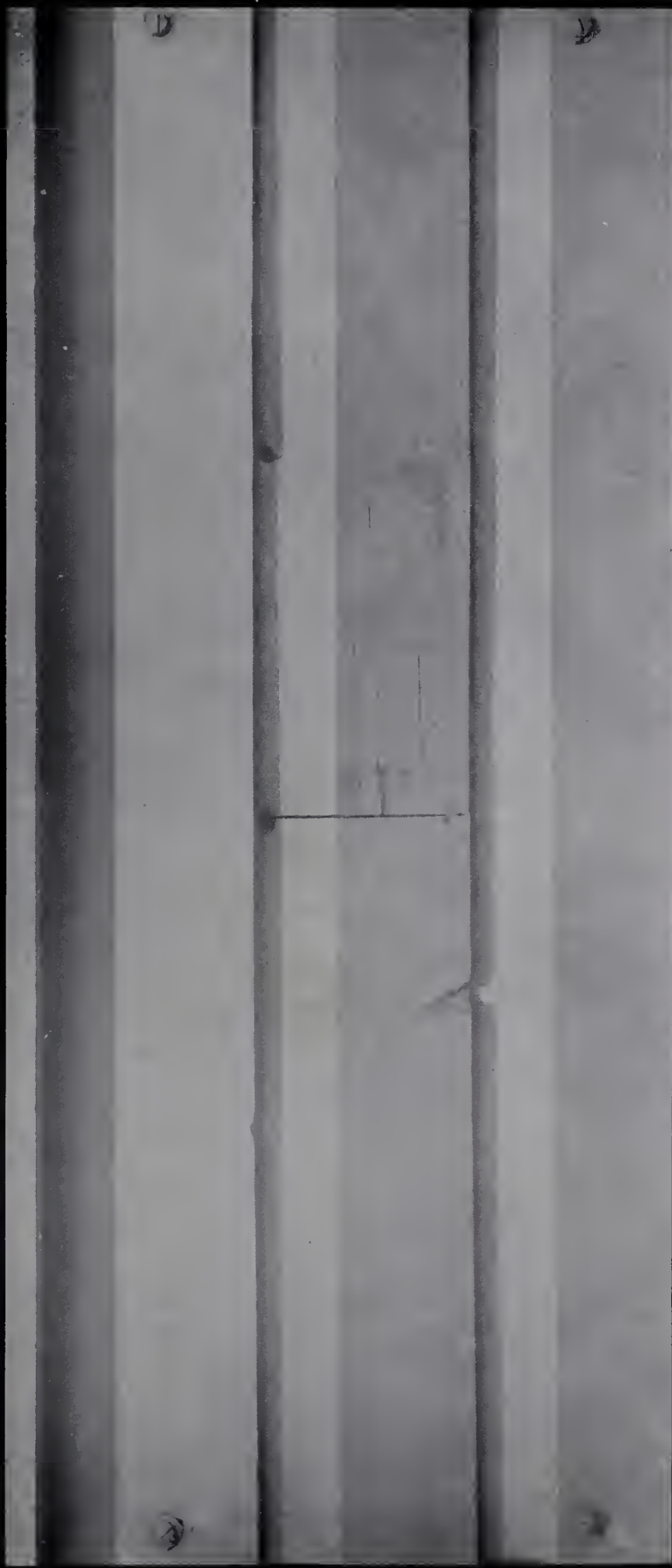


OLD TESTS REPAINTED

Formula No. 18

Test Panel No. 36

Basic Carbonate-White Lead.....	75%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	25%	Chalking: Medium
	<hr/>	Checking: Slight
	100%	Condition: Fair
		Remarks: Surface much darkened

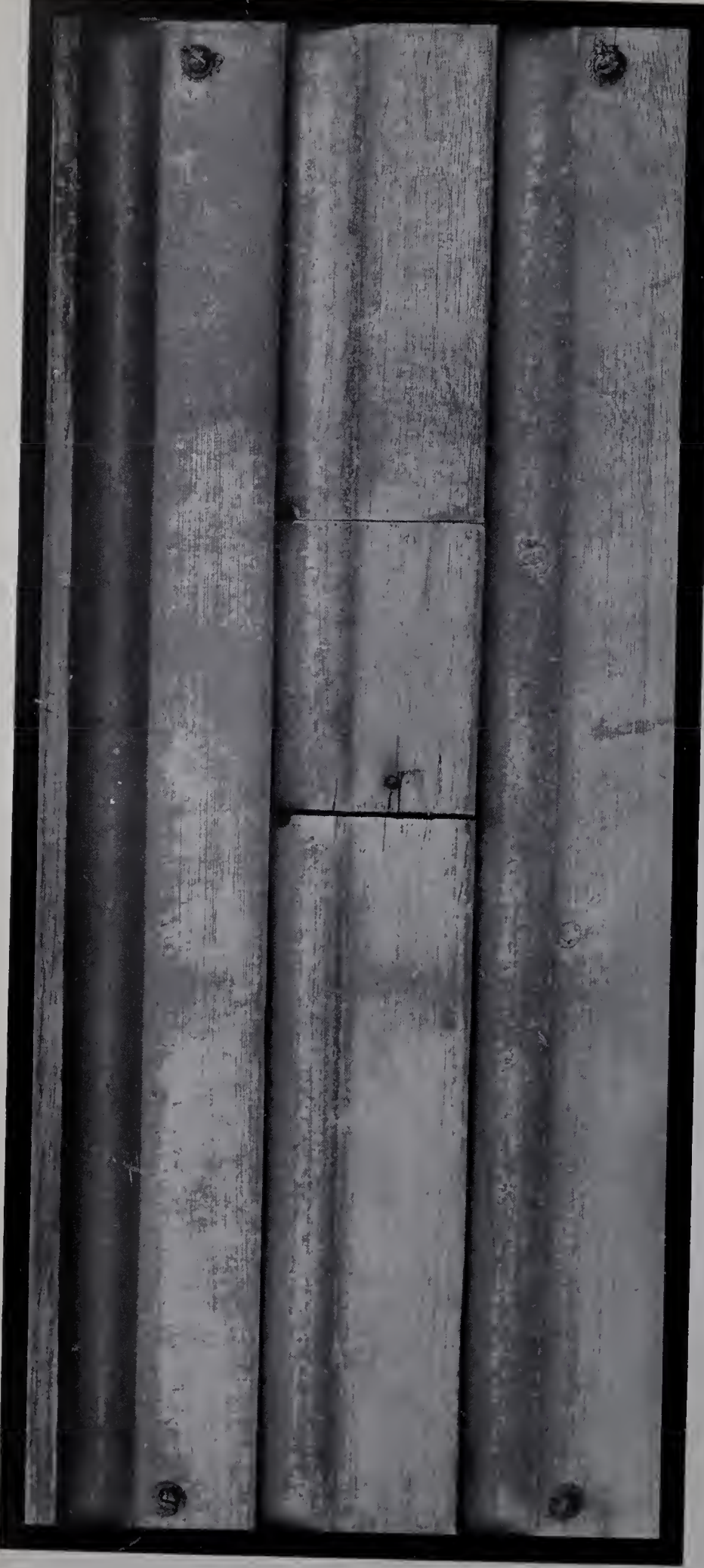


OLD TESTS REPAINTED

Formula No. 19

Test Panel No. 38

Zinc Oxide.....	25%	Results of Inspection, Aug. 29, 1912:
Basic Sulphate-White Lead.....	75%	Chalking: Medium
	<hr/>	Checking: None
	100%	Condition: Very good
		Remarks: Very white surface

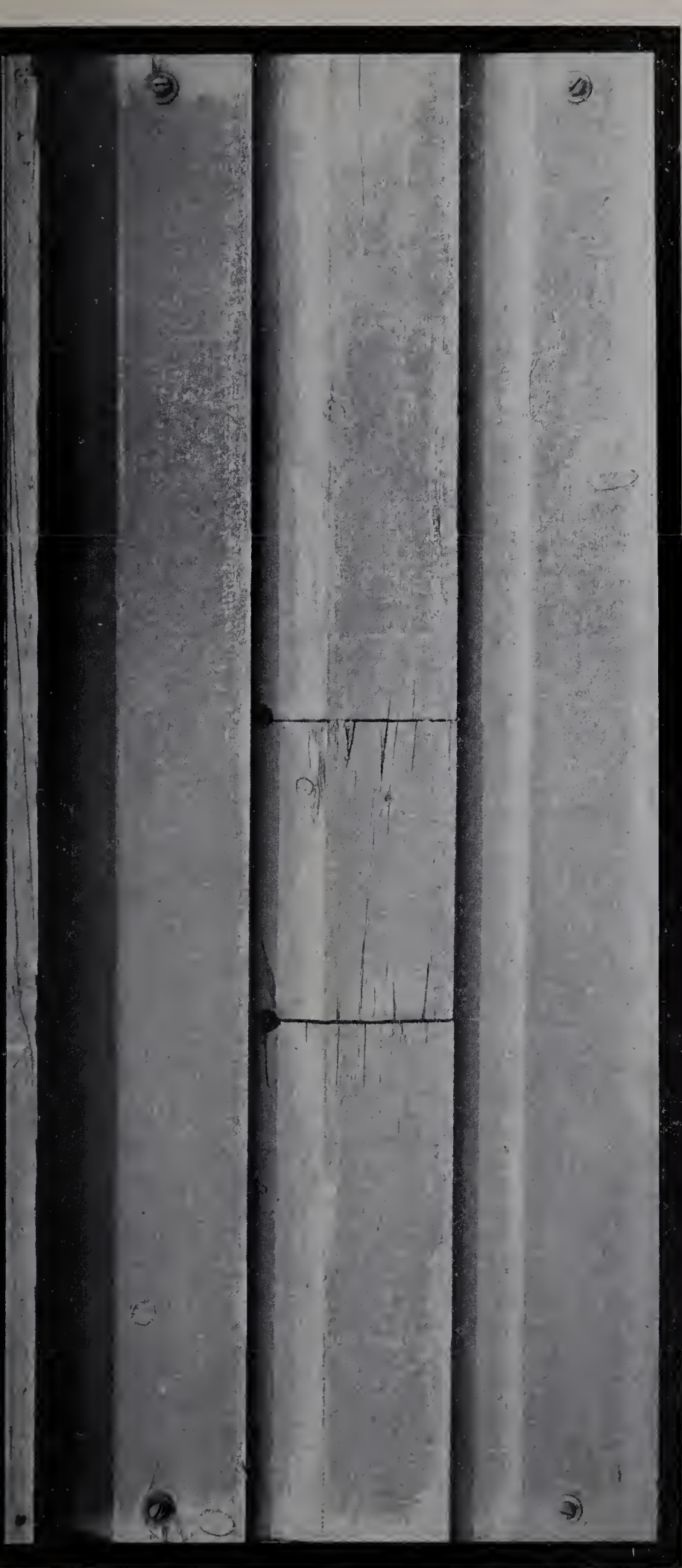


OLD TESTS REPAINTED

Formula No. 20

Test Panel No. 40

Basic Carbonate-White	Lead	67.0%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide		19.5%	Chalking: Considerable
Calcium Carbonate		10.0%	Checking: Slight
Magnesium Silicate		3.5%	Condition: Good
		100%	Remarks: Darkened



OLD TESTS REPAINTED

Formula No. 33

Test Panel No. 168

Basic Carbonate-White Lead.....	15%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	30%	Chalking: Very slight
Basic Sulphate-White Lead.....	25%	Checking: Medium
Silica	30%	Condition: Fair
<hr/>		Remarks: Surface rough and dark
		100%



OLD TESTS REPAINTED

Formula No. 34

Test Panel No. 172

Basic Carbonate-White Lead.....	38.95%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	33.58%	Chalking: Heavy
Basic Sulphate-White Lead.....	4.81%	Checking: None
Calcium Carbonate.....	19.48%	Condition: Good
Barium Sulphate.....	1.59%	Remarks: White
Silica	1.59%	

100%

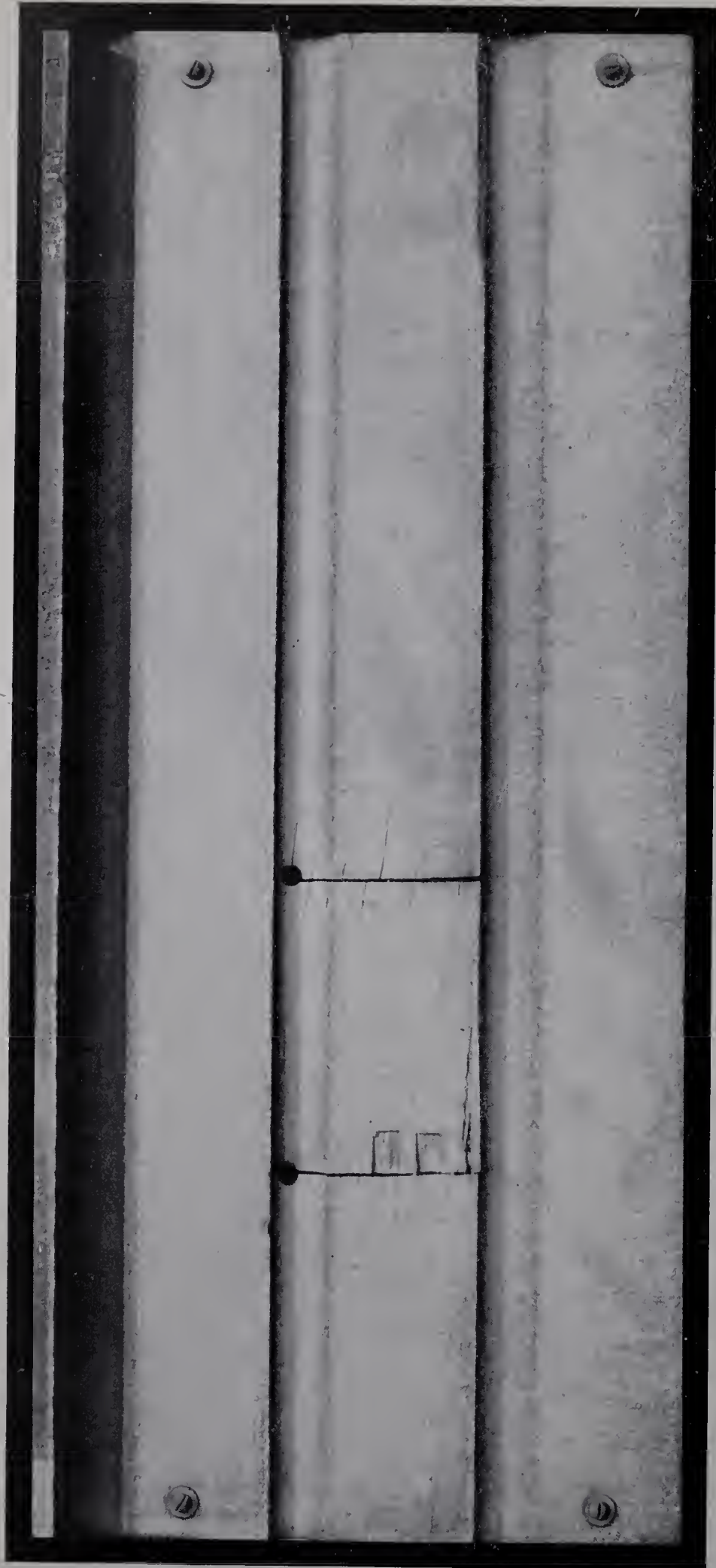


OLD TESTS REPAINTED

Formula No. 35

Test Panel No. 173

Basic Carbonate-White Lead.....	37.51%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	25.87%	Chalking: Heavy
Basic Sulphate-White Lead.....	7.84%	Checking: None
Calcium Carbonate.....	20.36%	Condition: Good
Barium Sulphate.....	4.21%	Remarks: Fairly white surface
Silica	4.21%	
<hr/>		
100.00%		

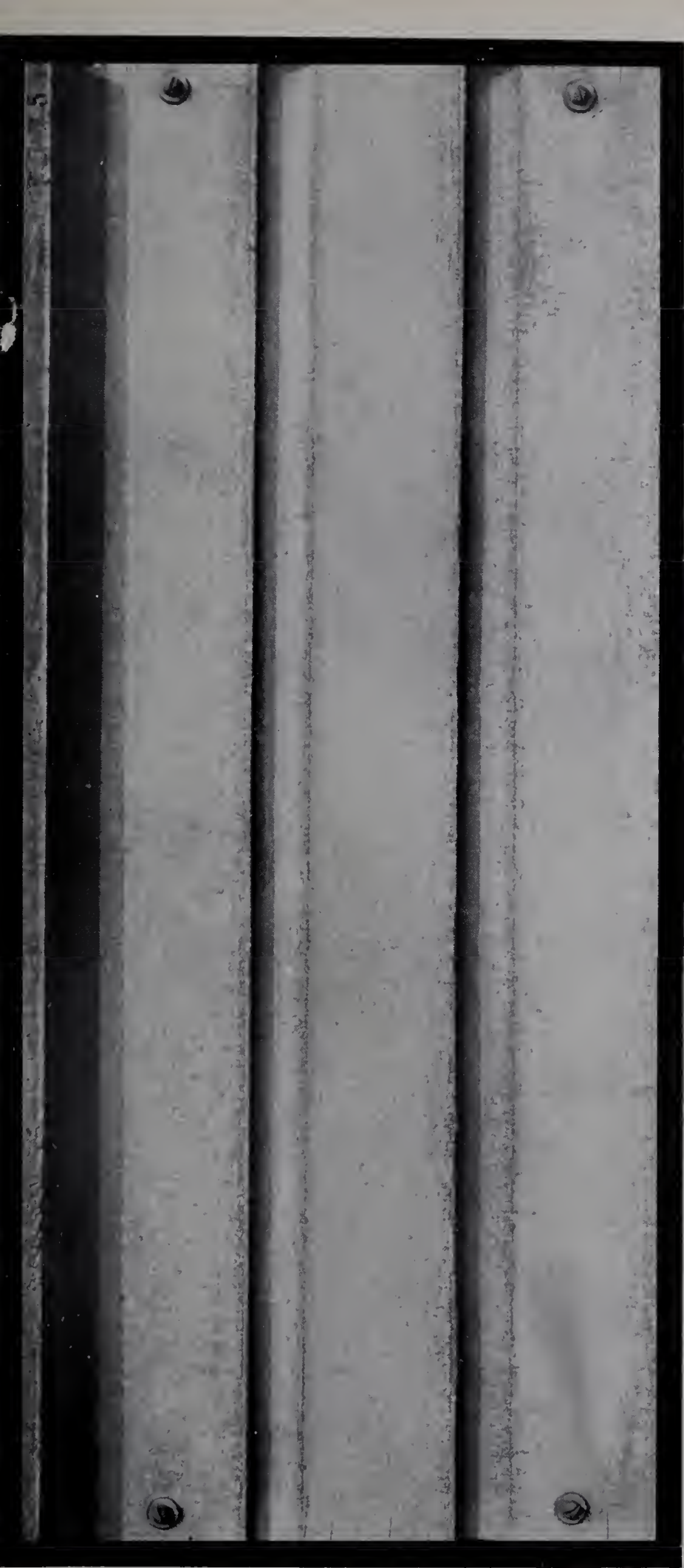


OLD TESTS REPAINTED

Formula No. 36

Test Panel No. 174

Basic Carbonate-White Lead.....	100%	Results of Inspection, Aug. 29, 1912:
		Chalking: Medium
		Checking: Heavy
		Condition: Fair
		Remarks: Darkened surface with mottled appearance



OLD TESTS REPAINTED

Formula No. 37

Test Panel No. 175

Basic Carbonate-White Lead.....	100%	Results of Inspection, Aug. 29, 1912:
		Chalking: Medium
		Checking: Considerable
		Condition: Poor
		Remarks: Much darkened



OLD TESTS REPAINTED

Formula No. 38

Test Panel No. 176

Basic Carbonate-White Lead.....	100%	Results of Inspection, Aug. 29, 1912:
		Chalking: None
		Checking: Heavy alligatoring
		Condition: Poor
		Remarks: Darkened



OLD TESTS REPAINTED

Formula No. 39

Test Panel No. 177

Zinc Lead White.....	100%	Results of Inspection, Aug. 29, 1912 :
		Chalking : Considerable
		Checking : Medium
		Condition : Fairly good
		Remarks : Fairly white

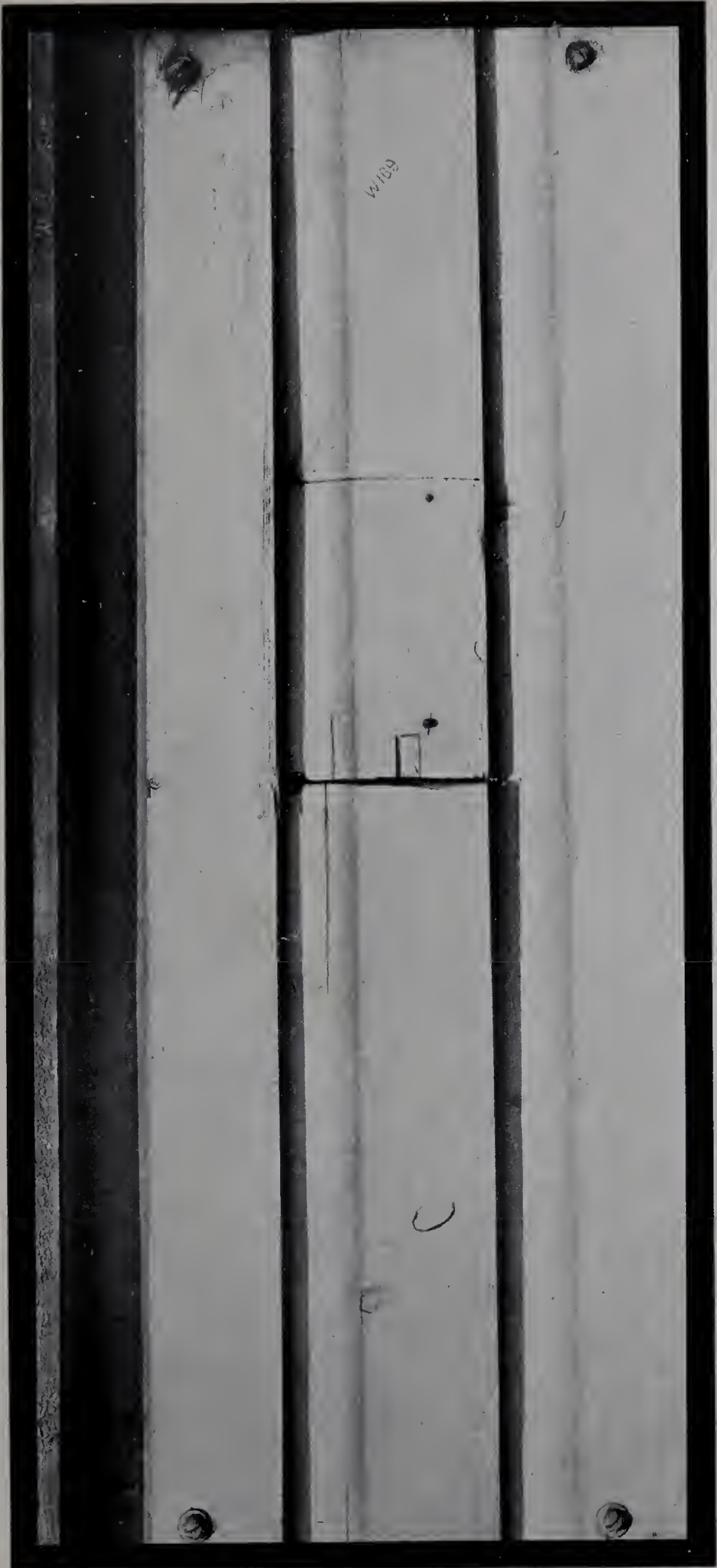


OLD TESTS REPAINTED

Formula No. 40

Test Panel No. 178

Basic Sulphate-White Lead.....	100%	Results of Inspection, Aug. 29, 1912:
		Chalking: Heavy
		Checking: None
		Condition: Good
		Remarks: White



OLD TESTS REPAINTED

Formula No. 45

Test Panel No. 169

Zinc Oxide.....	90%	Results of Inspection. Aug. 29, 1912:
Calcium Carbonate.....	10%	Chalking: Slight
	<hr/>	Checking: Medium
	100%	Condition: Fair
		Remarks: Surface darkened since last inspection



OLD TESTS REPAINTED

Formula No. 46

Test Panel No. 170

Zinc Oxide.....	61%
Barium Sulphate.....	39%
	<hr/>
	100%

Results of Inspection, Aug. 29, 1912:

Chalking: Very slight

Checking: Medium

Condition: Poor

Remarks: Surface darkened and slightly rough



OLD TESTS REPAINTED

Formula No. 47

Test Panel No. 171

Zinc Oxide.....	100%	Results of Inspection, Aug. 29, 1912:
		Chalking: Very slight
		Checking: Considerable
		Condition: Poor
		Remarks: Sealing pronounced

N 1

NEW TESTS

Formula No. 1

Test Panel No. 1

Basic Sulphate-White Lead.....	45%	Results of Inspection, Aug. 29, 1912:
Lithopone	40%	Chalking: —
Calcium Carbonate.....	15%	Checking: —
	<u>100%</u>	General Condition: —
		Remarks: Disintegrated

N 2

NEW TESTS

Formula No. 2

Test Panel No. 2

Basic Sulphate-White Lead.....	45%	Results of Inspection, Aug. 29, 1912:
Lithopone	40%	Chalking: —
Silica	15%	Checking: —
	<hr/>	General Condition: —
	100%	Remarks: Disintegrated

N 3

SEP 4 '12

N 3

SEE YELLOW

NEW TESTS		Formula No. 3	Test Panel No. 3
Zinc Oxide.....	45%	Results of Inspection, Aug. 29, 1912: Chalking: — Checking: — General Condition: — Remarks: Disintegrated	
Lithopone	45%		
Calcium Carbonate.....	10%		
		100%	

N 4

NEW TESTS

Formula No. 4

Test Panel No. 4

Basic Sulphate-White Lead.....	45%	Results of Inspection, Aug. 29, 1912:
Lithopone	45%	Chalking: —
Calcium Carbonate.....	10%	Checking: —
	<hr/> 100%	General Condition: —
		Remarks: Disintegrated

N 5

#N 5-SEP-4-12

N 5

FREE
YELLOW

NEW TESTS	Formula No. 5	Test Panel No. 5
Zinc Oxide.....	40%	Results of Inspection, Aug. 29, 1912:
Lithopone.....	40%	Chalking: _____
Calcium Carbonate.....	20%	Checking: _____
	100%	General Condition: _____
		Remarks: Disintegrated

N 6

NEW TESTS

Formula No. 6

Test Panel No. 6

Basic Sulphate-White Lead.....	45%	Results of Inspection, Aug. 29, 1912:
Lithopone	35%	Chalking: —
Asbestine	20%	Checking: —
	<hr/>	General Condition: —
	100%	Remarks: Disintegrated

N 7

NEW TESTS

Formula No. 7

Test Panel No. 7

China Clay.....	8%	Results of Inspection, Aug. 29, 1912:
Basic Carbonate-White Lead.....	50%	Chalking: Medium
Zinc Lead.....	36%	Checking: None
Asbestine	2%	General Condition: Very good
Barytes	4%	Remarks: Very white surface

100%

N 8

NEW TESTS

Formula No. 8

Test Panel No. 8

Basic Sulphate-White Lead.....	50%
Lithopone	36%
Asbestine	2%
China Clay.....	8%
Barytes	4%
	<hr/>
	100%

Results of Inspection, Aug. 29, 1912:

Chalking: Heavy

Checking: Heavy, scaled

General Condition: Very poor

Remarks: Darkened surface caused by lithopone and lead mixture

NEW TESTS

Formula No. 9

Test Panel No. 9

Results of Inspection, Aug. 29, 1912:

Chalking: Heavy

Checking: Heavy, scaled

General Condition: Very poor

Remarks: Darkened surface caused by lithopone and lead mixture

Basic Sulphate-White Lead.....	50%
Lithopone	36%
Asbestine	2%
Barytes	12%
	<hr/> 100%

N 10

NEW TESTS

Formula No. 10

Test Panel No. 10

Zinc Oxide.....	36%	Results of Inspection, Aug. 29, 1912:
Basic Sulphate-White Lead.....	50%	Chalking: Medium
Asbestine	2%	Checking: Slight
China Clay	8%	General Condition: Fair
Barytes	4%	Remarks: —
<hr/>		
100%		

N 11

New Tests

Formula No. 11

Test Panel No. 11

Basic Carbonate-White Lead.....	28%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	55%	Chalking: Considerable
Asbestine	3%	Checking: Considerable
Barytes	7%	General Condition: Fair
Blanc Fixe.....	7%	Remarks: Slightly darkened
	<hr/> 100%	

N 12

NEW TESTS

Formula No. 12

Test Panel No. 12

Blanc Fixe.....	7%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	55%	Chalking: Considerable
Basic Sulphate-White Lead.....	28%	Checking: None
Asbestine	3%	General Condition: Very good
Barytes	7%	Remarks: Very white
		<hr/>
		100%

N 13

NEW TESTS

Formula No. 13

Test Panel No. 13

Zinc Oxide.....	60%	Results of Inspection, Aug. 29, 1912:
Lithopone	30%	Chalking: —
Calcium Carbonate.....	10%	Checking: —
	<hr/>	General Condition: —
	100%	Remarks: Disintegrated

N 14

New Tests

Formula No. 14

Test Panel No. 14

Results of Inspection, Aug. 29, 1912:

Chalking: _____
Checking: _____
General Condition: _____
Remarks: Disintegrated

Zinc Oxide.....	30%
Basic Sulphate-White Lead.....	30%
Lithopone	30%
Calcium Carbonate.....	10%
	<hr/>
	100%

N 15

New Tests

Formula No. 15

Test Panel No. 15

Basic Sulphate-White Lead.....	60%	Results of Inspection, Aug. 29, 1912:
Lithopone	30%	Chalking: Heavy
Asbestine	10%	Checking: Heavy
	<hr/>	General Condition: Poor
	100%	Remarks: —

N 16

NEW TESTS

Formula No. 16

Test Panel No. 16

Lithopone	100%	Results of Inspection, Aug. 29, 1912:
		Chalking: —
		Checking: —
		General Condition: —
		Remarks: Disintegrated

N 17

NEW TESTS

Formula No. 17

Test Panel No. 17

Lithopone	100%	Results of Inspection, Aug. 29, 1912:
		Chalking: —
		Checking: —
		General Condition: —
		Remarks: Disintegrated

N 18

NEW TESTS

Formula No. 18

Test Panel No. 18

Basic Carbonate-White Lead.....	33%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	33%	Chalking: Heavy
Silica	17%	Checking: Considerable lateral checking
China Clay.....	17%	General Condition: Poor
	<hr/>	Remarks: Transparent
	100%	

N 19

NEW TESTS

Formula No. 19

Test Panel No. 19

Basic Carbonate-White Lead.....	34%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	33%	Chalking: Slight
Silica	33%	Checking: Considerable
	<hr/>	General Condition: Poor
	100%	Remarks: Semi-transparent

N 20

NEW TESTS

Formula No. 20

Test Panel No. 20

Basic Carbonate-White Lead.....	34%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	33%	Chalking: Very slight
China Clay.....	33%	Checking: Heavy
	<hr/>	General Condition: Poor
	100%	Remarks: Semi-transparent

N 21

NEW TESTS

Formula No. 21

Test Panel No. 21

Basic Carbonate-White Lead.....	100%	Results of Inspection, Aug. 29, 1912:
		Chalking: Medium
		Checking: Medium
		General Condition: Poor
		Remarks: Surface very rough and darkened

N 22

NEW TESTS

Formula No. 22

Test Panel No. 22

Zinc Lead..... 100% Results of Inspection, Aug. 29, 1912:
Chalking: Medium
Checking: Slight
General Condition: Fair
Remarks: Fairly white surface

N 23

NEW TESTS

Formula No. 23

Test Panel No. 23

Basic Carbonate-White Lead.....	100%	Results of Inspection, Aug. 29, 1912:
		Chalking: Very heavy
		Checking: Heavy
		General Condition: Poor
		Remarks: Surface very rough and damaged

N 24

NEW TESTS

Formula No. 24

Test Panel No. 24

Basic Sulphate-White Lead.....	100%	Results of Inspection, Aug. 29, 1912:
		Chalking: Heavy
		Checking: Very slight
		General Condition: Good
		Remarks: White surface

EXPOSED
NOVEMBER
1909

11
12
13

NEW TESTS

Formula No. 25

Test Panel No. 25

Zinc Lead.....	100%	Results of Inspection, Aug. 29, 1912:
		Chalking: Heavy
		Checking: Slight
		General Condition: Good
		Remarks: Fairly white surface

N 26

NEW TESTS

Formula No. 26

Test Panel No. 26

Precipitated White Lead.....	100%	Results of Inspection, Aug. 29, 1912:
		Chalking: Medium
		Checking: Medium
		General Condition: Poor
		Remarks: Rough, darkened surface

N 27

NEW TESTS

Formula No. 27

Test Panel No. 27

Basic Carbonate-White Lead..... 100%
(This white lead made by the cylinder process without
the use of acetic acid.)

Results of Inspection, Aug. 29, 1912:
Chalking: Considerable
Checking: Slight
General Condition: Good
Remarks: White surface with granular texture

N 28

New Tests

Formula No. 28

Test Panel No. 28

Basic Carbonate-White Lead.....	100%	Results of Inspection, Aug. 29, 1912:
		Chalking: Slight
		Checking: Deep
		General Condition: Very poor
		Remarks: Rough, darkened surface

N 29

NEW TESTS

Formula No. 29

Test Panel No. 29

Basic Carbonate-White Lead.....	24%	Results of Inspection, Aug. 29, 1912:
Zinc Oxide.....	45%	Chalking: Medium
Basic Sulphate-White Lead.....	13%	Checking: Slight
Asbestine	18%	General Condition: Good
	<hr/> 100%	Remarks: Very white

N 30

NEW TESTS

Formula No. 30

Test Panel No. 30

Basic Carbonate-White Lead.....	45%	Results of Inspection, Aug. 29, 1912:
Lithopone	40%	Chalking: Heavy
Calcium Carbonate.....	15%	Checking: Considerable
	<hr/>	General Condition: Poor
	100%	Remarks: Slightly dark

N 31

NEW TESTS

Formula No. 31

Test Panel No. 31

Basic Carbonate-White Lead.....	45%	Results of Inspection, Aug. 29, 1912:
Lithopone	40%	Chalking: Heavy
Silica	15%	Checking: Considerable
	<hr/>	General Condition: Poor
	100%	Remarks: Slightly dark

N 32

NEW TESTS

Formula No. 32

Test Panel No. 32

Basic Carbonate-White Lead.....	45%	Results of Inspection, Aug. 29, 1912:
Lithopone	35%	Chalking: Heavy
Asbestine	20%	Checking: Deep
	<hr/>	General Condition: Fair
	100%	Remarks: Dark and rough

N 33

New Tests

Formula No. 33

Test Panel No. 33

Basic Carbonate-White Lead.....	50%	Results of Inspection, Aug. 29, 1912:
Lithopone	36%	Chalking: Medium
Asbestine	2%	Checking: Considerable
Barytes	12%	General Condition: Poor
	<hr/> 100%	Remarks: Dark and rough

N 34

NEW TESTS

Formula No. 34

Test Panel No. 34

Basic Carbonate-White Lead.....	75%	Results of Inspection, Aug. 29, 1912:
Basic Sulphate-White Lead.....	25%	Chalking: Medium
	<hr/>	Checking: Medium
	100%	General Condition: Fair
		Remarks: Surface dark and rough

N 35

NEW TESTS

Formula No. 35

Test Panel No. 35

Basic Carbonate-White Lead.....	50%	Results of Inspection, Aug. 29, 1912:
Basic Sulphate-White Lead.....	50%	Chalking: Heavy
	<hr/>	Checking: Heavy
	100%	General Condition: Fair
		Remarks: Darkened surface is spotting off in places, probably due to second chalking*

*In the Pittsburgh district after the initial chalking of a paint has progressed, there is observed in some instances a darkened surface. This darkened surface is often removed to a great extent by the progressive chalking, or so-called "second chalking period," through which a paint will sometimes go.

N 36

NEW TESTS

Formula No. 36

Test Panel No. 36

Silica	100%	Results of Inspection, Aug. 29, 1912:
		Chalking: Very heavy
		Checking: Medium
		General Condition: Poor
		Remarks: Rough surface; transparent.

